



HAZARDOUS WASTE EXEMPTIONS AND EXCLUSIONS

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HAZARDOUS WASTE EXEMPTIONS AND EXCLUSIONS

Waste Water Treatment Unit Exemption

40 CFR 261.2 Recycling Table (Table 1)

Use Constituting Disposal

Precious Metals Recovery, Part 266 Subpart F

Incidental Processing/Sham Recycling

Simplified concepts



- **Generators** are exempted
- **Wastes** are excluded
- Conditional exemptions/exclusions are dependent on how *generators* manage waste
- **Treatments** are a *generator's* actions to change a waste

Exclusions / Exemptions



- From 270.1c(2) -- “permit exclusions”
 - Generators accumulating under 262.34
 - Farmers disposing of pesticides from their own use
 - Persons operating TSDs for wastes excluded under 261.4 and 261.5
 - Owners/operators of totally enclosed treatment facilities
 - **O/o of elementary neutralization units or wastewater treatment units**
 - Transporters storing manifested shipments at a transfer facility <10 days
 - Persons adding absorbent material to a waste container
 - Universal waste handlers
 - Immediate response to a spill or release
 - Response under the military munitions rule

From 261.2 -- “excluded from solid waste definition”



■ Table 1 - *conditional exclusions* for waste being reclaimed

- Used or reused to make a product, if not reclaimed first
- used or reused as a substitute for a ccp -- direct use req'd
- Returned to the original process w/o being reclaimed or land disposed

■ **BUT, these wastes may be subject to regulation if managed as SW/HWs in RCRA units before those actions, UNLESS** (BTW, can you guess how speculative accumulation plays a part in this ?)>>>>>

■ Documentation of claim that material is not a **solid waste**

-- **this is very conditional !!**

40 CFR 261.2

TABLE 1

	Use constituting disposal (§ 261.2(c)(1))	Energy recovery/fuel (§ 261.2(c)(2))	Reclamation (261.2(c)(3)), except as provided in §§ 261.4(a)(17), 261.4(a)(23) or 261.4(a)(24), and 261.4(a)(25)	Speculative accumulation (§ 261.2(c)(4))
	1	2	3	4
Spent Materials	(*)	(*)	(*)	(*)
Sludges (listed in 40 CFR Part 261.31 or 261.32	(*)	(*)	(*)	(*)
Sludges exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
By-products (listed in 40 CFR 261.31 or 261.32)	(*)	(*)	(*)	(*)
By-products exhibiting a characteristic of hazardous waste	(*)	(*)	—	(*)
Commercial chemical products listed in 40 CFR 261.33	(*)	(*)	—	—
Scrap metal other than excluded scrap metal (see 261.1(c)(9))	(*)	(*)	(*)	(*)

Note: The terms "spent materials," "sludges," "by-products," and "scrap metal" and "processed scrap metal" are defined in 261.1.

261.2 (f) – Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.


(f) *Documentation of claims that materials are not solid wastes or are conditionally exempt from regulation.* Respondents in actions to enforce regulations implementing subtitle C of RCRA who raise a claim that a certain material is not a solid waste, or is conditionally exempt from regulation, must demonstrate that there is a known market or disposition for the material, and that they meet the terms of the exclusion or exemption. In doing so, they must provide appropriate documentation (such as contracts showing that a second person uses the material as an ingredient in a production process) to demonstrate that the material is not a waste, or is exempt from regulation. In addition, owners or operators of facilities claiming that they actually are recycling materials must show that they have the necessary equipment to do so.

From 261.3 -- “excluded from HW definition”



- Mixture of SW and characteristic HW which no longer exhibits a characteristic
- Mixture of SW and listed HW (solely characteristic) which no longer exhibits a characteristic (but, 268 still applies to non-wastewaters)
- **Mixture of SW and listed HW *wastewater* discharged under CWA 307 or 402 permit, AND specifically described HW constituents**
- Used oil >1000ppm halogens is *presumed* HW, but the rebuttable presumption can exclude it
- Several special wastes described in the part (unless they exhibit a characteristic)
- Debris managed under the 268 debris treatment standards (if it does not meet a characteristic)

From 261.4 -- "HW exclusions"



- *Everyone should study this section thoroughly !! It is the primary basis for most exclusions !!*

- Special notice items:
 - Hazardous wastes generated in a process unit, *Until...Unless*
 - Shredded circuit boards being recycled (not scrap metal, but under 261.4a(14))
 - Samples
 - Treatability Study Samples
 - Dredged material

From 261.5 -- "CESQG exemptions/CESQG exclusions"



- CESQG's are **conditionally exempt**, but the waste is NOT necessarily **excluded**
- Some specific exclusions:
 - CESQGs adding their own HW to their own used oil and burning for energy recovery in an on-site space heater (under 279) -- this is a *conditional exemption/exclusion* (and also a treatment, BTW)
 - HW mixed w/ other SW, unless it meets a characteristic, is still subject to the reduced requirements
 - Characteristic HW mixed w/ other SW which no longer is characteristic


From 261.6 -- "recyclables conditional exclusions"



- >>> Special regulations under Part 266 for **use constituting disposal**, burned for energy recovery, **precious metal reclaim**, lead-acid batteries

See the January 4, 1985, F.R. and its preamble !

From 261.6 -- “recyclables conditional exclusions” (cont.)



- Facilities **storing** HW before recycling **are** subject to Part B
- Facilities recycling HW *without first storing* subject only to notification, manifest, Subparts AA & BB
- The recycling process itself is *exempt* from regulation !! (except for AA and BB)

GENERATOR HW TREATMENT



- Generators may treat *their* HW in tanks or containers, (or containment buildings), pursuant to Part 268, using BDATs applicable to their waste stream being treated
- READ THE MARCH 24, 1986, F.R., PREAMBLE -- Locate the 'famous' "of course....." paragraph. Then read the promulgation preamble to Part 268. Now you're an expert on the subject, so quit bugging ME!

GENERATOR REQUIREMENTS FOR TREATMENT



- From 268.7 -- “the big issues”
- Must be managed in tanks, containers, or containment buildings
 - Develop and follow a written waste analysis plan
 - [Use BDAT for the specified waste]
 - Notification requirements for off-site shipment
- Deactivated characteristic wastes managed in WWTUs (esp. if subsequently managed under CWA)
- Debris rule treatment standards

Hazardous Waste Treatment

Excluded Process Examples



- Precious metal recovery
 - Immediate response to a spill or release
 - Elementary neutralization
 - Military Munitions Rule actions
 - WWT Unit/CWA exclusion
 - Totally Enclosed Treatment Units
 - Treatability Studies
 - CESQGs
-and quite a few others if you think about it !

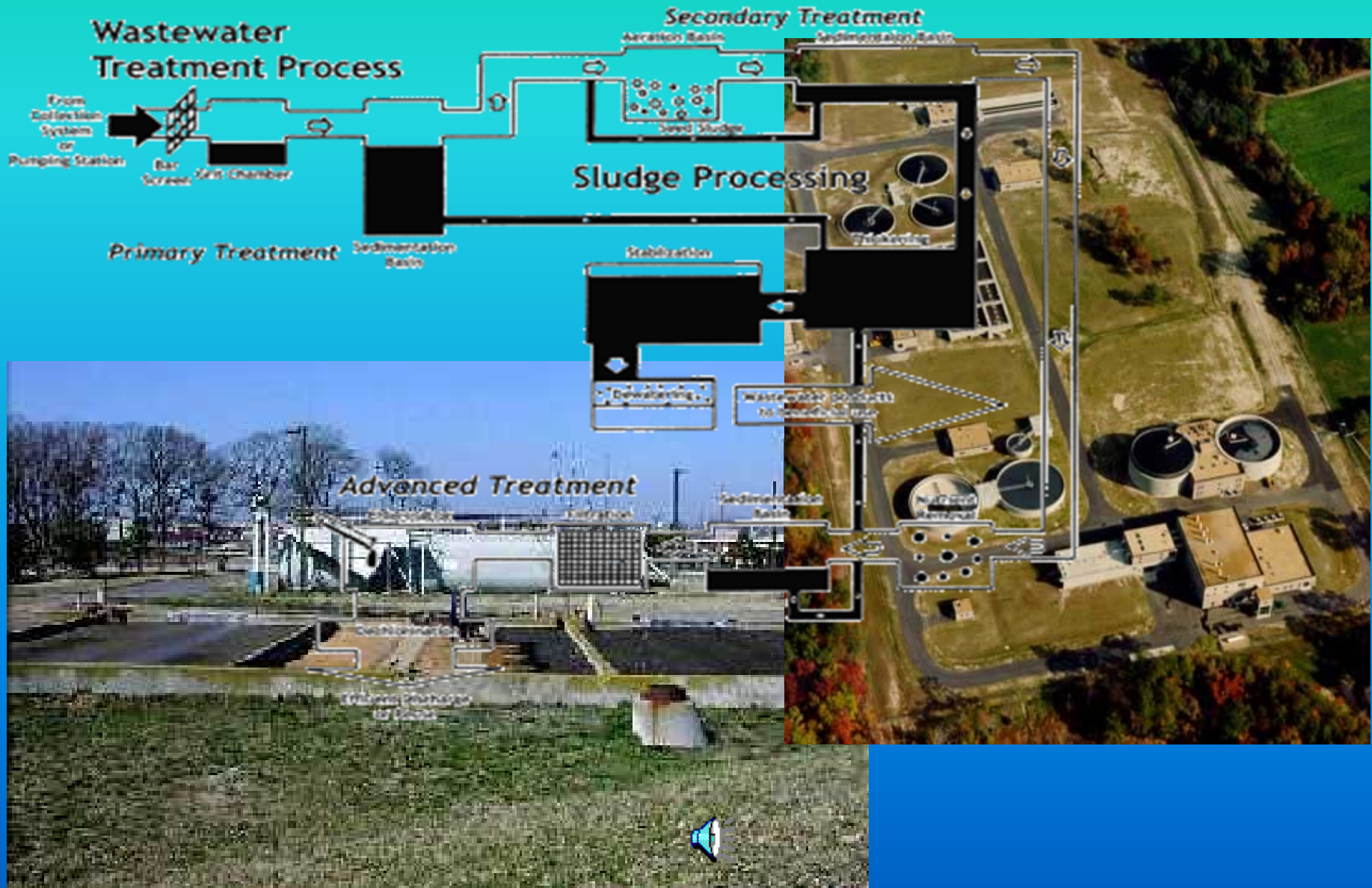
Hazardous Waste Treatment

Excluded Waste Examples



- Compatible waste comingling at point of generation
 - Mixtures of SW/HW no longer meeting a characteristic
 - Waste recycled/reclaimed without being stored first
 - On-site recycling/reclaim
 - Scrap metal
-
-and how many more possibilities when you think about all the exclusions !

Wastewater Treatment



Why the WWTU Exemption ?

“... to avoid imposing duplicative permitting requirements.

Without this exemption, facilities could be subject to both an NPDES permit or a wastewater pretreatment permit and a hazardous waste permit for the same unit. The underlying assumption U.S. EPA used in justifying the WWTU exemption was that tanks used to handle hazardous wastewaters at these facilities would be provided with oversight under the CWA, thereby ensuring no significant decrease in environmental control. “

Totally Enclosed Treatment Facilities -- Facilities designed to treat hazardous waste which are directly connected to an industrial production process, and constructed and operated in a manner which prevents the release of any hazardous waste or any constituent thereof into the environment during treatment. EPA states that "a totally enclosed treatment facility" must: (1) be completely contained on all sides, (2) pose negligible potential for escape of constituents to the environment, (3) be connected directly by pipeline or similarly totally enclosed device to an industrial production process. The agency also indicates that effluent discharged to a POTW is exempt from RCRA regulation. However, it is subject to pretreatment regulations.

Elementary Neutralization Unit -- Devices used for neutralizing waste defined as hazardous solely because it is corrosive and which meet the definition of tank, container, transport vehicle or vessel in 40 CFR 260.10.


Wastewater Treatment Units -- Devices which: (1) are part of a waste water treatment facility subject to regulation under Sections 307 or 402 of the Clean Water Act (i.e., direct dischargers of wastewaters); (2) receive and treat or store hazardous influent wastewater, or generate and accumulate a hazardous wastewater treatment sludge, or treat or store hazardous wastewater treatment sludge, and (3) meet the EPA definition of a tank.

Domestic Sewage Exemption -- Under 40 CFR 261.4(a), materials that would normally be subject to hazardous waste regulations are exempt because they are not defined as "solid waste." The domestic sewage exemption covers:

- "Untreated sanitary wastes that pass through a sewer system".**
- Any mixture of domestic sewage and other wastes that passes through a sewer system to a POTW for treatment.**

WASTEWATER TREATMENT UNIT EXEMPTION

-- 07/31/1981



Off-site hazardous waste management facilities can be wastewater treatment units (WWTUs). The actual permit or effluent limit is not needed for discharge to be considered subject to the CWA. Wastewater does not include concentrated chemicals or nonaqueous waste. Presses, filters, and sumps may be WWTU.

Wastewater Treatment Exemptions for Certain Hazardous Waste Mixtures , aka ***THE HEADWORKS RULE*** - 09/01/2005



Wastewater treatment systems receive many different kinds of waste. In certain instances, these wastes are a miniscule and treatable part of the wastewater mixture...EPA is taking the following action.

- Adding two solvents (benzene and 2-ethoxyethanol) to a list of solvents whose mixtures are exempted from the definition of hazardous waste;
- Adding an option to directly measure solvent chemical levels at the headworks of the wastewater treatment system;
- Exempting scrubber waters generated from the incineration of spent solvents from hazardous waste management; and
- Making listed hazardous waste (beyond discarded commercial chemical products) eligible for RCRA de minimus exemption as well as allowing nonmanufacturing facilities to qualify for the de minimus exemption.

INTERPRETATION OF WASTEWATER TREATMENT UNIT EXEMPTION - 04/09/1998



Tanks satisfying the wastewater treatment unit (WWTU) exemption must be dedicated solely for on-site wastewater treatment at all times and for no other purpose. EPA did not intend for the exemption to apply in either the dual use or alternating use scenario. The generator accumulation provision can be used in such instances.

SEPARATOR WATER AND USE OF EVAPORATORS AT DRY-CLEANING FACILITIES -- 06/02/1993



Evaporator units at dry cleaners that have eliminated their CWA discharges due to concern over sewer leaks are generally **wastewater treatment units (WWTU)** (SEE ALSO: RPC# 10/22/93-02). **The WWTU exemption applies only to wastewater, not concentrated wastes like free-phase perchloroethylene.**

WASTEWATER TREATMENT UNITS: REGULATORY STATUS OF WASTE -- 06/01/1992

Regulatory status of waste generated in a wastewater treatment unit (WWTU). **Waste is exempt only while in the unit.** Residues from the treatment of a listed waste in a WWTU remain listed due to derived-from rule (SEE ALSO: 66 FR 27266; May 16, 2001).

*“ As stated in an internal Agency memorandum, “[o]nly the wastewater treatment unit (i.e., the tank) is exempt; the exemption does not 'follow' or attach to the waste.” Consequently, **all applicable hazardous waste management standards apply to the waste prior to treatment in the WWTU, and to any residue generated by the treatment of that waste.** In other words, solid waste resulting from the treatment of a listed hazardous waste in an exempt WWTU will remain a listed hazardous waste, and solid waste resulting from the treatment of a characteristic hazardous waste in an exempt unit will remain hazardous as long as the solid waste continues to exhibit a characteristic (§§261.3(c) and (d)).”*


REQUIREMENTS FOR CHARACTERISTIC SLUDGE REMOVED FROM A WASTEWATER TREATMENT UNIT --- 06/01/2004



A treatment sludge from characteristic wastewaters in a WWTU must be managed as hazardous once it is removed from tank if it exhibits a characteristic. Such waste is subject to on-site storage, transportation, and LDR requirements. If a nonwastewater sludge does not exhibit a characteristic it is not subject to Subtitle C, but LDR may still apply. Treatment of a wastewater that results in a change to nonwastewater may be a change in treatability group and a new point of generation. If there has been a change in treatability group and the waste is no longer characteristic, LDR requirements do not apply.

PRETREATMENT STANDARDS FOR WASTEWATER TREATMENT UNITS

RCRA Online Number:14122 **Date:**08/01/1997



Facilities that discharge a pollutant covered under CWA Section 307(b) to a publicly owned treatment works (POTW) are considered to be subject to the CWA. Tanks or tank systems that treat hazardous wastewaters before discharging them to a POTW can qualify as exempt wastewater treatment units (WWTUs) because they are subject to the CWA.

PERMIT REQUIREMENTS FOR “ZERO” WASTEWATER TREATMENT SYSTEM --- 03/20/1989



A "zero discharge" wastewater system must have NPDES permit, applicable effluent guideline, or pretreatment standard specifying zero discharge to qualify as wastewater treatment unit (WWTU). A zero discharge system returning all treated water to production avoids CWA rules but does not automatically qualify for the totally enclosed treatment unit (TETU) exemption. A wastewater treatment system using open tanks and not restricting escape of contaminant to air is not a TETU. Illegal discharge of hazardous waste to river may be "subject to" CWA and eligible for industrial discharge exclusion, although discharge is a CWA violation subject to EPA enforcement action.

APPLICABILITY OF THE DOMESTIC SEWAGE EXCLUSION 03/10/1997



The domestic sewage exclusion extends to both listed and characteristic wastes which pass through sewer system to a publicly owned treatment works (POTW). Sewage is subject to CWA, and exempt from RCRA. Waste removed or leaked from a sewer line does not meet the conditions of the exemption. Releases from a sewage lines could be solid waste management units (SWMUs) or areas of contamination (AOCs). The definition of facility for corrective action is dependent on site-specific factors. Releases from SWMUs at permitted facilities are addressed under Sections 3004(u) or 3004(v) authority. Non-SWMU related releases, both within and beyond the facility boundary, are addressed under Section 3005(c)(3) omnibus permitting authority; releases at interim status facilities addressed under Section 3008(h) interim status corrective action orders. Domestic sewage is defined as untreated sanitary wastes that passes through a sewer system.

SOLVENT-WASTEWATER MIXTURE RULE EXEMPTION


03/09/1989



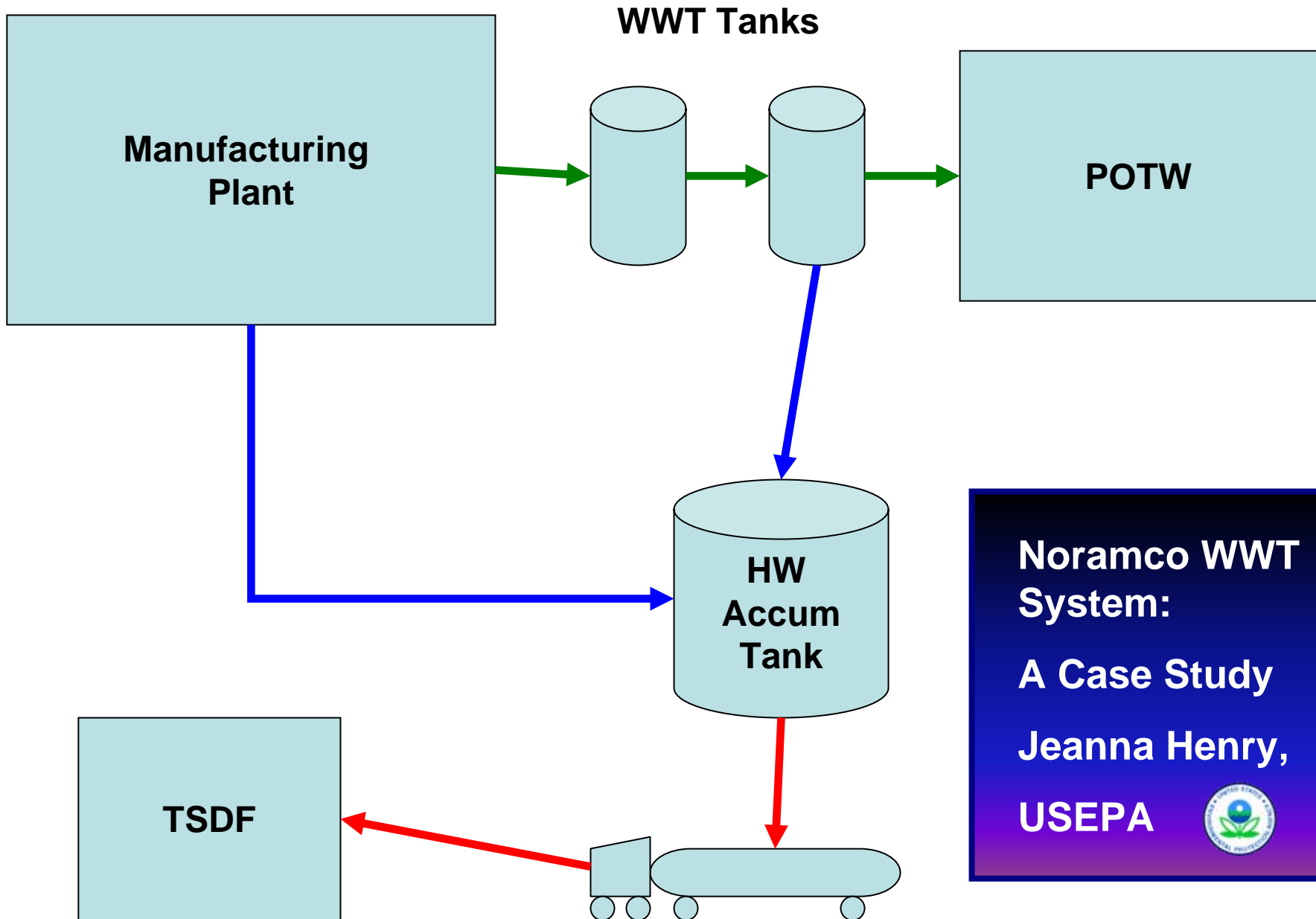
It is unclear whether the mixture exemptions in 261.3(a)(2)(iv) apply to intentional discharges of segregated spent solvents to storm sewers. EPA does not encourage the intentional disposal of solvent wastes into storm sewer, even if all elements of exemption are met.

DE MINIMIS WASTEWATER MIXTURES SENT OFF SITE

03/01/1998



The mixture rule exclusion at Section 261.3(a)(2)(iv)(D) applies only to mixtures of wastewaters and de minimis amounts of commercial chemical products that are sent to a facility's on-site wastewater treatment system discharging under CWA 307(b) or 402. If the wastewater mixture is shipped off-site by truck, the shipment must be delivered by a hazardous waste transporter and accompanied by a manifest. The manner in which the wastewater mixture is transported to an on-site wastewater treatment unit does not affect the exemption.



**Noramco WWT
System:**

A Case Study

Jeanna Henry,

USEPA



Use Constituting Disposal



The direct placement of recycled materials, that is wastes or waste derived-products, on the land.

Note: remediation activities involving replacement of treated soils onto the land is not a type of use constituting disposal, in part, because it is a supervised remediation instead of an unsupervised recycling activity.

LAND DISPOSAL RESTRICTIONS AND USE CONSTITUTING DISPOSAL - 08/01/2001



Compliance with the land disposal restrictions (LDR) treatment standards applies to the product that will be used in a manner constituting disposal, not the waste before it becomes a manufactured product. A recyclable material that is used in a manner constituting disposal is not subject to regulation if the product meets the applicable LDR treatment standards for each hazardous waste it contains before it is applied to the land.

Recyclable materials used in a manner constituting disposal must meet 3 criteria to be land applied:

- 1) Product must be produced for the general public's use
- 2) The recyclable products must undergo a chemical reaction so that they are inseparable from the product
- 3) The product must meet applicable LDR treatment standards

APPLICABILITY OF FARMER EXEMPTION TO SOILS CONTAMINATED WITH WASTE PESTICIDES - 12/01/2001



The land disposal restrictions (LDR) requirements apply to soil contaminated with waste pesticides disposed in accordance with the farmer exemption if the soil is later excavated and remediated. The disposal of contaminated soil excavated from farmland is not analogous to the disposal of waste pesticides and is not within the scope of the Section 262.70 exemption.

SPENT SULFURIC ACID EXCLUSION AND USE CONSTITUTING DISPOSAL - 06/01/1999



Spent sulfuric acid used to produce **virgin sulfuric acid** per **261.4(a)(7)** is **not a solid waste**, regardless of how the facility subsequently utilizes the virgin sulfuric acid. Excluded sulfuric acid incorporated into a fertilizer is not waste-derived and is not regulated when applied to the land. The entire recycling process must be considered for a material not specifically excluded under 261.4(a).

MATERIALS USED IN FERTILIZER PRODUCTION MANAGEMENT --- 0/11/1991



Characteristic sludge (D008) used to make fertilizer is a solid waste, even if first sent to a facility for lead reclamation. Fertilizer produced for the general public's use that meets land disposal restrictions (LDR) treatment standards is no longer subject to regulation under the use in a manner constituting disposal exemption. Discusses the history of use constituting disposal regulations. The solid waste determination for a recycled material must be made at the point of generation and must account for the entire recycling process, not only the first step. Addresses the elements of legitimate recycling.

“ For example, criteria to be used to evaluate the legitimacy of recycling include the following:

Does the waste contain Appendix VIII constituents not found in the analogous raw material/product (or at higher levels)?

Does the waste exhibit hazardous characteristics that the analogous raw materials/product would not?

Are the toxic constituents actually necessary (or of sufficient use) to the product or are they not necessary for the product? ”

GENERATOR STORAGE REQUIREMENTS FOR PART 266, SUBPART F, PRECIOUS METALS --- 04/01/1997



Generators accumulating recyclable materials for precious metal recovery are not required to store the materials in RCRA-regulated accumulation units (i.e., tanks, containers, and containment buildings). *EPA assumes these materials will be managed carefully due to their economic value.* Precious metals being reclaimed must be counted towards generator monthly determination.

ECONOMICALLY SIGNIFICANT AMOUNTS OF PRECIOUS METALS --- 07/15/1998



The presence of **economically significant amounts of precious metals**, **efficient recovery operations**, **no land disposal of wastes**, and **payment by the reclaimer to the waste generator** are indicators of legitimate precious metal recovery. True precious metal recovery is characterized by net financial return to the generator (i.e., sufficient to cover all costs). Persons engaged in recovery operations bear the burden of proving legitimacy.


CLARIFICATION OF THE REGULATORY STATUS UNDER RCRA OF SILVER RECOVERY UNITS USED IN PHOTO PROCESSING --- 08/04/1995



Silver recovery units used to treat photographic processing wastewaters are characteristic sludges and not a solid waste when reclaimed. This applies regardless of whether the sludge is produced as a result of required or voluntary wastewater treatment.

What about spent materials reclaimed through the same recovery system? How does Part 261.2, Table 1 apply?

RECLAIMED METHANOL IS A PRODUCT RATHER THAN A WASTE -- 10/23/1985



Reclaimed methanol (99.5% purity) sent off-site for further reclamation before use in a manufacturing process is more product-like than waste-like, is not a solid waste, and need not be manifested. It is analogous to reclaimed metals that only have to be refined (SEE ALSO: 50 FR 634; 1/4/85).

How does this relate to the incidental processing concepts expressed EPA's Guidance for Identifying Incidental Processing Activities" (October, 2005) ?

Guidance for Identifying Incidental Processing Activities” (October, 2005)

Materials which undergo only “incidental processing” are not considered reclaimed and can be excluded from regulation under use/reuse provisions.

The guidance clarifies and expands on what constitutes incidental processing to distinguish it from reclamation.

Examples (not all inclusive):

- **triple distillation of 99% pure mercury to obtain a higher specification**
- **final filtration to remove minute quantities of particulate matter to guarantee physical quality**
- **viscosity adjustment, ensuring purity by separating minor amounts of foreign material (e.g. grit, ash, or water)**
- **final processing of a material that closely resembles a finished product to remove minor impurities.**

SHAM RECYCLING

RCRA considers five factors, each of which may constitute evidence of sham recycling:

- **Where the secondary material is ineffective or marginally effective in the process or product.**
- **When the secondary material is used in excess of the amount necessary.**
- **When no records are kept on the secondary material.**
- **When no care is taken to prevent the loss of the secondary material used as a feed stock (e.g. through evaporation).**
- **When the secondary material contains more contamination than the original feedstock material (disposing of contaminants in secondary material by using them in the process).**



Revisions to the Definition of Solid Waste

40 CFR Parts 260 and 261

Supplemental Proposed Rule

Federal Register: March 26, 2007 (Volume 72, Number 57)

Revisions to the Definition of Solid Waste

March 26, 2007



Supplemental proposal which would revise the definition of solid waste to exclude certain hazardous secondary materials from regulation under RCRA

Proposed changes to the definition of solid waste on October 28, 2003 (68 FR 61558).

This proposal designed to encourage safe, environmentally sound recycling and resource conservation and to respond to several court decisions concerning the definition of solid waste. (ABR decision)

260.10 Definitions.

***Hazardous secondary material** generated and reclaimed under the control of the generator means:*

- (1) That such material is generated and **reclaimed at the generating facility** ...
- (2) That such material is generated and **reclaimed by the same “person” ... if the generator certifies** ...
- (3) That such material is generated pursuant to a **written contract between a tolling contractor and a batch manufacturer** and are reclaimed by the tolling contractor, if the tolling contractor retains ownership of, and responsibility for, the recyclable material that is generated during the course of the production of the product.

261.2 (g) --- Legitimate Recycling.



(1) Hazardous secondary material that is not legitimately recycled is discarded material and is a solid waste. Persons who recycle such material, as well as persons claiming to be excluded ... must be able to demonstrate that the recycling is legitimate.

(2) Legitimate recycling must involve ... a useful contribution...

261.2 (g) --- Legitimate Recycling.

(2) Legitimate recycling must involve ... **a useful contribution...**

(i) The hazardous secondary material provides a *useful contribution* if it:

(A) contributes valuable ingredients to a product or intermediate; or

(B) replaces a catalyst or carrier in the recycling process; or

(C) is the source of a valuable constituent recovered in the recycling process; or

(D) is recovered or regenerated by the recycling process; or

(E) is used as an effective substitute for a commercial product.

261.2 (g) --- Legitimate Recycling.



(ii) The product or intermediate is **valuable** if it is:

(A) sold to a third party; or

(B) used by the recycler or the generator as an effective substitute for a commercial product or as an ingredient or intermediate in an industrial process.

261.2 (g) --- Legitimate Recycling.



(3) The following factors need to be considered in ...
legitimacy...

(i) ...The generator and the recycler should manage such material as a valuable commodity...

... at a minimum, in a manner consistent with the management of [an analogous] raw material.

Where there is no analogous raw material, the hazardous secondary material should be contained.

Materials that are released to the environment and are not recovered in a timely manner are discarded.

261.2 (g) --- Legitimate Recycling.



legitimacy...

(ii) Whether the product of the recycling process:

(A) contains **significant concentrations of any Appendix VIII of Part 261 hazardous constituents** that are not found in analogous products;

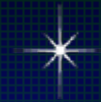
or

(B) contains concentrations of any Appendix VIII of Part 261 hazardous constituents at levels that are *significantly elevated* from those found in analogous products;

or

(C) *exhibits a hazardous characteristic ... that analogous products do not exhibit*. If a product contains any of these concentrations or exhibits a hazardous characteristic, that fact may be an indication that the material is not legitimately recycled.

LAND



MMVII



SWRO	WCRO	SCRO	VRO	NRO	PRO	TRO
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